

*JANYNA M. MERCADO, PH.D.*  
*Neuropsychological Institute of San Antonio, LLC*  
13409 NW Military Hwy, Ste. 301  
Shavano Park, TX 78231  
(210) 860-9755

## NEUROPSYCHOLOGICAL EVALUATION

**Name:** Esmeralda Soto      **Date Tested:** 23 February 2018  
**DOB:** 30 December 1978      **Age:** 39  
**Education:** 14      **Handedness:** Right  
**Date of Accident:** 26 September 2017

**Evaluation completed by: Dr. Mercado, Licensed Psychologist  
Mr. Felix Leal, Psychometrician.**

**Reason for Referral:** Ms. Soto, a 39-year-old right handed, Hispanic female, was referred by the Law Office of Gene Toscano, Inc. for a comprehensive neuropsychological evaluation after her involvement in a motor vehicle accident (MVA). The purpose of this evaluation is to assess and quantify her current neurocognitive and psychological functioning to document if she suffers from residual cognitive and psychological impairment from her involvement in a MVA in September 2017.

**Limits of Confidentiality:** Ms. Soto agreed to complete a clinical interview and neuropsychological evaluation. She was informed, prior to beginning the clinical interview, that she was willingly and knowingly participating in this process. She reported understanding that I was hired by the Gene Toscano Law Firm to complete a neuropsychological evaluation. I explained that the results of this evaluation will be viewed by all attorneys involved in the current legal proceedings. Ms. Soto understands that this evaluation does not establish a doctor patient relationship. This examination was completed for evaluative purposes only and intended to address specific injuries or conditions recognized by her motor vehicle accident. It was further explained to Ms. Soto that it was important for her to put forth good effort during this evaluation in order to obtain the most accurate representation of her current neurocognitive and psychological functioning. Informed consent was discussed and obtained from Ms. Soto to proceed with assessment procedures.

### **Diagnostic Impressions:**

**Ms. Soto's current condition meets criteria for the following DSM-V diagnosis:**

331.83 (G31.84) Mild Neurocognitive Disorder, (secondary to mild traumatic brain injury) with specific impairment with mild executive dysfunction, verbal/visual rapid decay, severe visual memory impairment, and bilateral fine motor impairments). Impairments in social and occupational functioning are present.

296.22 [F32.1] Major Depressive Disorder, moderate

### 310.1 [F07.0] Personality Change due to General Medical Condition (Traumatic Brain Injury)

**Review of Medical Records Summary:**

- I. Texas SpineCare Center
- II. LMJ Imaging Services Open MRI, Inc.
- III. American Health Imaging
- IV. Culebra Injury & Pain Clinic
- V. San Antonio Health Care Center
- VI. Brio San Antonio Imaging

**I.** Texas Spine Care Center with Dr. A. Bruggeman on 3 November 2017, initial visit note: Ms. Soto presented at the initial consult with cervical and lumbar pain from an involvement in a MVA on 9/26/2017. She was transported to hospital by EMS. Two days later she went back because she had severe headaches. When she has her headaches, she has tingling on side of face. She has head pain on the left side and neck pain. She has pain in the back of her shoulder blades and down the middle of her back. She also has lower back pain. She has no numbness currently. She has weakness in both of her arms. At the time, she participated in physical therapy for about 4 weeks and it had not helped. She was taking Toradol and Ibuprofen for her pain. She had an MRI of cervical and thoracic spine but she did not bring imaging to her appointment. Her brain MRI was pending.

**II.** At LMJ Imaging Services on 20 November 2017 an MRI lumbar spine without contrast was conducted for low back pain radiating to legs and feet with tingling and numbness, stiffness and decreased range of motion. Impression indicated: 1). A posterior central annular tear at the L5-S1 level measuring 10.3 mm in greatest transverse diameter, 2). At L3-L4, a posterior protrusion-subligamentous disc herniation, right and left posterolateral-foraminal in location, by as much as 3.0 mm, which impinges upon the anterior thecal sac. The neural foramina are patent, 3). At L4-L5, a posterior protrusion-subligamentous disc herniation, central, right and left posterolateral-foraminal in location, by as much as 3.3 mm, which impinges upon the anterior thecal sac. There is mild bilateral facet and ligamentum flavum hypertrophy. There is mild narrowing of the bilateral neural foramina, and 4). At L5-S1 a posterior protrusion-subligamentous disc herniation, central, right and left posterolateral in location, by as much as 5.6 mm, which impinges upon the anterior epidural fat. The neural foramina are patent.

**III.** On 29 January 2018 a brain MRI was ordered by Dr. P. Waikem for Ms. Soto's severe headaches. Imaging revealed no parenchymal contusion and no extra axial hemorrhage were noted. There is no small vessel ischemia, infarct or parenchymal mass seen, para nasal sinuses were clear. No fracture identified.

**IV.** At her initial visit on 25 January 2018, Ms. Soto presented to Culebra Injury & Pain Clinic with chief complaints of C-spine pain, left shoulder pain, L-spine pain, and headache with dizziness.

**V.** On 25 January 2018 at SA Health Care Center an EEG was ordered for her headaches. As opined by Dr. M. Zuflacht, this is probably a normal EEG though the posterior occipital sharp activity which occurred during drowsiness may be a manifestation of previous head trauma, namely a possible contrecoup-type injury. If further indicated, a prolonged video-assisted EEG would be indicated.

**VI. Brio San Antonio Imaging on 29 January 2018:**

A). MRI Lumbar Spine w/o contrast revealed: 1). broad-based subligamentous disc herniation at L5 S1 of 3.5 mm in AP dimension producing grade 1 impression on both L5 nerve roots in the neural foramina, 2). Broad-based disc bulge at L4-5 of 3 mm in AP dimension, and 3). Broad-based disc bulge at L3-4 of 3 mm in AP dimension.

B). MRI Shoulder w/o contrast-left revealed: 1). Partial thickness, intrasubstance tearing of the anterior

third of the supraspinatus tendon involving approximately 75% of the tendon thickness and of approximately 1 cm in size, and 2). Obliquely oriented superior labral tear or SLAP lesion at the biceps tendon anchor consistent with post-traumatic injury.

#### **NEUROPSYCHOLOGICAL TEST RESULTS:**

**Summary:** With regards to performance validity tests, required as part of a Forensic Neuropsychological Evaluation, she passed all implicit and explicit measures, which indicated that she put forth her best effort and that the results are valid for interpretation. The results of the current neuropsychological evaluation are a valid reflection of Ms. Soto's current cognitive and psychological functioning. Relative to her same aged peers, her overall level of intellectual functioning as measured by the WAIS-IV demographically adjusted Full-Scaled IQ score was in the Low Average range (FSIQ=84). Average performances were demonstrated on both perceptual reasoning and working memory indices with a Low Average processing speed index score. A cognitive deficit was revealed with her verbal comprehension skills as noted by her Mild Impairment score on the WAIS-IV. She obtained Mildly Impaired scores on both a reading test of estimated premorbid intellectual functioning and on the General Ability Index Score of the WAIS-IV. The verbal comprehension, and estimated premorbid scores are likely reflective of cultural experiences and quality of education.

Neuropsychological testing revealed Mildly Impaired difficulty with executive functioning on a test of abstract conceptual processing while sorting cards by specific categories, especially if a card could be sorted by 2-3 stimulus characteristics which would cause her to lose track of how she was sorting, repeating errors even with immediate feedback. Similar executive dysfunction was noted with visual organization and planning difficulty as demonstrated during her copy of a complex geometric figure performing in the Severely Impaired range. The demonstrated cognitively impaired performances with executive functioning will manifest as deficiencies in planning, abstract thinking, mental flexibility, paying attention, remembering details and behavioral control. Hence, she will demonstrate intermittent cognitive inefficiency comprehending the underlying principles of novel information or ambiguous situations and taking longer than usual in solving them.

Occupationally, Ms. Soto will have difficulty with work related tasks such as sorting out what information is relevant to the task at hand, prioritizing tasks, keeping track of tasks and responsibilities, and managing her time effectively. Hence, others may perceive her as performing her duties poorly because of her forgetfulness, and difficulty completing tasks. The added stress and consequences from work only add to and cause further distress of her symptoms. This is consistent with Ms. Soto cognitive complaints of feeling mentally slower in processing and comprehending information. Verbal list learning and visual-spatial deficits were noted with a rapid decay of learning information and commensurate with Ms. Soto's complaints of difficulties with memory, becoming forgetful of conversations, appointments, frequently repeating herself, difficulty recalling events, and needing frequent reminders to stay on track during her daily activities.

Psychological assessment indicated Ms. Soto endorsed Moderate depression and Mild anxiety symptomology, and residual PTSD symptoms as endorsed by self-rated questionnaires. Personality assessment indicated depressive feelings with somatic, neurological and head pain complaints with behavioral/externalizing dysfunction. Her affective state with accompanying decreased sleep, fatigue and pain levels from sustained physical injuries can interfere with her attention/concentration and cognitive functioning. Attention difficulties influence memory and attention is the foundation upon which all other thinking and problem-solving skills are based. Therefore, processing complex information is more difficult and time-consuming and can account for her complaints with decreased learning and memory of new information. As a result, her mental energies are quickly drained causing her to make frequent errors on a variety of novel or ambiguous learning tasks. She will become overwhelmed with information

presented too quickly to adequately process, leaving her feeling frustrated with her inability to pay attention and forgetfulness.

Anxiety, depression, anger and frustration are common emotional responses to the loss of skills, roles and control over her life, slow pace of progress and the uncertain extent of future recovery. Ms. Soto is experiencing a cyclical relationship among the cluster of physical, cognitive and emotional disorders associated with the disabilities resulting from the MVA. This cyclical relationship exacerbates her subjective cognitive complaints and leads to reduce coping causing further distress and further exacerbation and maintenance of her symptoms as she continues to struggle to manage her daily activities, socially and occupationally since the MVA.

#### **Neuropsychological Testing Results by Neurocognitive Domain:**

##### *Validity of Test Results:*

Ms. Soto's scores on all free-standing and imbedded validity tests indicated good motivation and effort during the entire assessment. Therefore, the current assessment is considered an accurate reflection of her current cognitive functioning based on Diagnostic Statistical Manual – 5 (DSM-5) criteria, symptom validity testing, diagnostic interviewing, statistically significant test scores, and clinical judgment.

The purpose of a neuropsychological evaluation, per the practice guidelines set forth by the *American Academy of Clinical Neuropsychology (AACN) Practice Guidelines for Neuropsychological Assessment and Consultation Board of Directors* (The Clinical Neuropsychologist, 21:209-231, 2007), is to assess "the impact of brain injury or disease on the cognitive, sensorimotor, emotional, and general adaptive capacities of the individual." In 2004, Lezak et al., defined neuropsychology as "an applied science concerned with the behavioral expression of brain function and dysfunction" (Neuropsychological Assessment, fourth edition; Lezak, Howieson, and Loring, 2004.) The neuropsychological evaluation completed with Ms. Soto follows proper methods and procedures put forth by the profession. Results of the evaluation provide objective information with data obtained to assist in clearly documenting her current level of neurocognitive and psychological functioning.

##### *General intellectual/neurocognitive abilities:*

Ms. Soto's overall demographically adjusted Full-Scale IQ score of the WAIS-IV, fell in the Low Average range (FSIQ=84) of general intellectual ability as compared to her same aged peers. Perceptual reasoning and working memory indices were in the Average range. Her processing speed skills were in the Low Average range of performance. A deficit was revealed with her verbal comprehension skills. She performed in the Borderline Impairment range on both a word reading test of estimated baseline intellectual functioning and on the general ability index of the WAIS-IV.

##### *Verbal/Language abilities:*

Her verbal comprehension demographic index score on the WAIS-IV was in the Mild Impairment range, suggesting mild difficulty with verbal reasoning and concept formation skills compared to her same aged peers. Her score on a test of confrontational picture naming was in the Mild/Moderate Impairment range. These deficits with verbal comprehension and word reading test are likely a reflection of cultural experience and quality of education. Ms. Soto's spontaneous speech was fluent and of normal rate, volume and prosody. Her verbal expression was logical and appropriate.

##### *Nonverbal reasoning/Perceptual Organization:*

Ms. Soto's perceptual reasoning demographic index score on the WAIS-IV, measuring nonverbal fluid reasoning, spatial processing and visual-motor integration, fell in the Average range.

*Attention/Working memory:*

Her working memory index score on the WAIS-IV, measuring temporary encoding, storage and control while performing mental operations, was in the Average range. Simple visual motor attention when connecting numbers in numerical order and letters in alphabetical order were in the Average range. Her scores on the DKEFS Color-Word Interference test measuring basic reading and color naming, involving simple attention span, were both in the Average ranges.

*Processing Speed:*

Ms. Soto's score on visuomotor processing speed tasks requiring her to quickly process simple visual material without making errors on the WAIS-IV was in the Low Average range. Processing speed is an indication of the rapidity with which she can mentally process simple or routine information without making errors. She performed in the Average ranges on motor processing tasks involving drawing lines from one number to the next in sequence and from one letter to the next in alphabetical order. Her visual scanning score on a number cancellation task of the DKEFS was in the Average range.

*Executive Functions:*

Ms. Soto's demographically adjusted perceptual reasoning index score was in the Average range. On a computerized measure of abstract conceptual processing, Ms. Soto's completed all 6 categories with 28 errors, resulting in an Average performance. Of note, she made 25 perseverative responses indicative of persistence in responding incorrectly in relinquishing the old category for a new one. She would become confused and occasionally forgetful when a card could be match by two or three sorting principles. She obtained a Severely Impaired copy score of the Rey Complex Figure Test indicating significant difficulties with planning and organization of complex visual information. Her scores on the more cognitively demanding tasks of the DKEFS Inhibition and Inhibition/Switching trials were in the Low Average to Average ranges. Her verbal letter and category fluency scores were in the Low Average to Average range with a Low Average category switching accuracy score. On the complex executive functioning tasking requiring her to alternate drawing connecting lines between numbers and letters in increasing order, she performed in the Average range.

*Learning/Memory:*

On a word-list assessment of verbal memory, Ms. Soto's total score across the learning trials was in the Mild Impairment range suggesting problematic difficulty with learning new information, even with repetition. Her short-delayed recall score was in the Low Average range and her long-delayed recall score in the Mild Impairment range, indicative of some rapid decay of verbal memory. Contextual memory as measured by repeating back as much information as possible with verbally present stories, she obtained Average to Above Average scores on the short and delayed recall trials. However, on a measure of visuospatial constructional ability and memory requiring drawing a complex geometric figure, she performed in the Severe Impairment range on both the immediate and delayed recall trials. Formal testing indicated difficulty with verbally presented list learning with rapid decay of verbal memory and significant impairment with visually presented information.

*The Montreal Cognitive Assessment (MOCA):*

This cognitive screening tool assesses multiple cognitive domains for several neurological diseases such as mild neurocognitive disorder. Ms. Soto's total score was one point below the cut off at 25/30, indicative of some global neurocognitive dysfunction. She demonstrated some difficulty with visuospatial and verbal memory tasks.

***Motor functions:***

Ms. Soto is right hand dominant. She obtained bilateral Moderate/Severe Impairment scores on a task of fine motor dexterity as measured by a peg board task. Psychomotor slowing is expected with moderately depressed individuals as indicated on a self-reported measure.

***Affective Functioning:***

Ms. Soto's score of 20 on the Beck Depression Inventory-II suggests Moderate Depressive symptomatology across affective, cognitive and physiological domains. Mild Anxiety symptomatology was endorsed on the Beck Anxiety Inventory as indicated by her score of 10 on the self-report questionnaire. She continued to endorse Moderate/Severe residual PTSD symptomology of repeated, disturbing and unwanted memories of the stressful experience, and avoiding, external reminders of the stressful experience as indicated by her score of 17 on the Posttraumatic Stress Disorder Check List-5.

***Personality Assessment:***

Ms. Soto's validity scores on the Minnesota Multiphasic Personality Assessment-2RF indicated she responded in a consistent manner to item content. She endorsed difficulty with behavioral/externalizing dysfunction, somatic complaints, cynicism, ideas of persecution, head pain complaints, neurological complaints, helplessness/hopelessness, and self-doubt.

**Recommendations:**

- 1.) Ms. Soto is encouraged to seek psychotherapy to deal with the residual psychological sequelae, endorsing Moderate Depression, Mild Anxiety and residual PTSD symptomology. If she has not already, seek a medication consultation with a psychiatrist to determine if she would be a candidate for psychopharmacotherapy to alleviate her symptoms of depression and anxiety. If the symptoms worsen to include suicidal ideation, it is imperative that she seeks immediate emergency assistance.
- 2.) Ms. Soto must remain under the care of all the specialty physicians who are treating her due to the array of medical problems she suffered because of the mild traumatic brain injury and daily chronic physiological pain sustained in September 2017 accident that has been life-altering for her.
- 3.) It is evident from the results of this neuropsychological evaluation that Ms. Soto suffers from residual Mild Neurocognitive Disorder at the time of this evaluation. It is highly recommended that compensatory skills are used to help her navigate through her daily routine, including:
  1. Break up longer tasks, working on tasks sequentially rather than multitasking
  2. Keeping a written daily planner, set reminders on electric devices, writing down information/notes so she will not be forgetful
  3. Increase repetition of new material or information to increase recall
  4. Avoiding distractions, complete tasks in a quiet room, turning off televisions or other distracting sources during activities that require sustained attention and concentration
  5. If becoming fatigued or losing focus, stop and take a break before returning to the task which will reduce frustration and irritability
  6. Continue to be vigilant about utilizing cognitive compensatory techniques on daily basis.

- 4.) Ms. Soto is encouraged to engage in activities with others and in hobbies that she previously enjoyed if she is still able to do so. Such activities may be beneficial in increasing stamina and maintaining her physical and mental health, as they will cognitively challenge her and assist her in remaining socially active.
- 5.) With regards to future neuropsychological testing, it is recommended that Ms. Soto is evaluated in 12-18 to determine if there has been any clinically significant progression of cognitive impairments in specified domains or if her symptoms remain stable. If Ms. Soto's family or her treating providers should notice any further changes in cognitive abilities prior to the suggested evaluation time frame, then please contact us for a sooner appointment date. At this point it is clear that Ms. Soto does have the presence of a neurocognitive disorder due to her involvement in a motor vehicle accident, which requires follow up care. Recommendations can also be updated at that time.

**Behavioral Observations:** Ms. Soto arrived at the appointment on time and presented to the assessment appropriately groomed and dressed casual attire. She ambulated independently with normal gait and posture. She was polite, courteous and rapport was easily established. She indicated understanding the rationale and procedures for testing and agreed to participate. She appeared her chronological age. Eye contact was appropriate. She was alert and fully oriented X4. There was no evidence of tic, tremor, or other aberrant movements during the evaluation. Vision and hearing was deemed adequate for the purposes of the evaluation. Speech was normal in rate, tone, and prosody. Interpersonal skills appeared appropriate, and she conversed freely in conversation. Mood appeared consistent and within normal limits throughout the assessment. Her content was full range. She denied current suicidal / homicidal ideation, plan, and intent. She denied current and past auditory/visual hallucinations. Throughout the evaluation, she put forth good effort and demonstrated excellent motivation and cooperation. Therefore, test results can be considered an accurate estimate of Ms. Soto's current neuropsychological functioning.

**Diagnostic Interview: History of Presenting Problems:**

***Current Cognitive and Psychological Symptoms:***

Ever since the MVA, Ms. Soto has noticed personality changes and increased moodiness. She is quite labile, with severe mood swings feeling edgy and cranky. Her daughter has noticed the personality change and now describes her moodiness as "bitchy". If she goes out to a country bar, like she used to, the music is too loud and triggers headaches. At times, if the television volume is high, it irritates her. Her friends would describe her as the life of the party, the wild one and carefree, but she is less social, more subdued and no longer that way.

Her sleep has changed for the worse obtaining at most five to six hours per night. She indicated frequent and intense lower back pain prevents her from sleeping well. If she is laying on her back, her neck and head hurt, and her legs become numb. If she lies on her sides, her shoulders hurt.

Physiologically, she has noticed a decrease in appetite, but she has gained weight. Her libido has decreased, but her husband is supportive. She has not been able to enjoy horseback riding with her daughter since the accident. She used to chaperone her daughter's dance team, but now, the music is too loud for her and triggers severe headaches. Her daily activities at home have been affected. She could iron clothes for up to six hours but now she can only iron for 10-15 minutes and she must sit down to alleviate her back pain.

**Day of Accident:**

Janyna M. Mercado, Ph.D.  
Clinical Neuropsychologist

13409 NW Military Hwy, Ste 301  
San Antonio, Texas 78231

23 February 2018

On Tuesday, 26 September 2017, Ms. Soto had driven home for lunch to check on her husband who just had a back procedure. She telephoned her boss to inform her that she would be running late back to work. It was raining that day, so she was driving slowly on Sara Road without the radio on or her cell phone out. She stopped at the Industrial Blvd intersection. She started forward to cross the street, into her warehouse, and suddenly a tractor trailer crossed in front of her.

Her last memory was covering her face as she crashed into the trailer. Her expedition truck was pinned underneath the trailer's diesel tank. She was told she experienced a period of loss of consciousness. Her first memory was waking up in a chair and two guys standing in front of her. A Spanish speaking guy was standing in front of her and recording her. One of the men kept repeating himself that he was sorry and did not see her. A coworker was driving by and witnessed the accident and EMS was called. She still has patchy memories of the collision with the tractor trailer and stated it happened quickly and suddenly. She kept asking for her daughter. When her daughter's godfather went to the vehicle to retrieve her belongings, the truck was a total loss.

She was transported to the Doctor's Hospital of Laredo via ambulance and she stayed there for about five hours. She stated she was released because she did not have insurance coverage. She told the staff she did not have insurance or \$500.00 to cover the visit. She indicated no broken bones and she was released with Ibuprofen and a muscle relaxer.

After leaving the hospital, she recalled that night she was quiet and did not speak. The back of her head was in excruciating pain when she would lie down. She told her husband that she felt like her head was going to "pop" and she was nauseated and vomiting. She could not function. She became tearful during the clinical interview as she described the first night home.

Two days later, on Thursday, 28 September 2017, she returned to the hospital and was told she would be imaged. Hospital staff recommended an MRI, but because she did not have insurance coverage, no imaging was conducted. She was informed that she may have sustained a concussion. Upon returning home that day, she indicated she felt like she was "floating," and felt "weird". She was in severe pain and it was a struggle to shower and dress herself.

The following day, Friday, she attempted to speak with her insurance adjuster because her truck was totaled, and she needs another vehicle. The claims adjuster was uncooperative and aggressive over the telephone. That was when she decided to seek legal counsel and hired personal injury lawyer, Andrew Toscano, from San Antonio, Texas.

She returned and attempted to work on October 2-3, 2017 but the company was uncooperative with her. She was very nervous and anxious driving the same route to work where the accident occurred. Her daughter told her she was "edgy". It was emotionally difficult for her to handle and she resigned on 1 November 2017.

**Pain:**

She rated her pain level at a seven on a pain scale of 1-10, upon arrival to today's evaluation. She reported daily headaches since the accident with varying pain levels that come and go. She indicated she has learned to cope with the headache pain. At the assessment, she complained of bitemporal headache pain.

**Medical/Psychiatric History:**

She indicated childhood medical history included ankle surgeries from falling off a horse at the age of six years old, but did not suffer a traumatic brain injury or loss of consciousness. She reported a hypothyroidism diagnosis in 2006, but has not taken prescription medication for a while. No psychiatric history was reported prior to the accident. She indicated she was a very stable and happy person. She reported no suicidal or homicidal ideation and no auditory or visual hallucinations. She indicated occasional alcoholic beverage and reported no tobacco use, illegal substance use/abuse and no legal history.

She has visited her neurologist, Dr. Zuflacht to alleviate her headaches, dizzy spells with associate nausea and stated he thinks she may have suffered a concussion. She has also visited an internal medicine physician, Dr. Prieto and orthopedic surgeon, Dr. Bruggeman.

Medications: for the evaluation, she did not take any prescribed medication because it makes her drowsy. She currently takes Flexeril to help her relax and sleep. She is taking Pamelor (Nortriptyline) for her headaches, but it makes her sleep for 10-12 hours.

**Developmental / Academic / Occupational / Social Histories:**

Ms. Esmeralda Soto, a 39 year old Hispanic female was born on 30 December 1978 in Laredo, Texas. She indicated her mother's pregnancy was at full term without perinatal or postnatal complications. She achieved all developmental milestones on time. She has one younger sister. She was born and raised and never moved away from Laredo. She was three years old when her parents divorced. Her biological father worked in the oil field industry and she rarely saw him. Her mother remarried before her sixth birthday. She stated she had an outstanding relationship with her stepfather, who was a fire fighter for the City of Laredo. She described her childhood as wonderful, always horseback trail riding and having fun. She was always around firefighters and they became her second family.

Her mother passed away in 2010 at the age 50 from breast cancer. It was diagnosed too late and misdiagnosed for three years at the hospital. Her mother's death was difficult because both her biological father and stepfather were diagnosed in 2006 with cancer. Her biological father passed away in April 2008 from lung and liver cancer. Her stepfather was employed as a fire fighter in Laredo, Texas for 30 years; he passed away at the age of 59 years old.

Academically, Ms. Soto described herself as a good student making mostly letter grade Bs from kindergarten through the 12<sup>th</sup> grade. She stated her mother would describe her as smart. In 1998, she graduated from JW Nixon High School, in Laredo Texas. She enrolled at Laredo Community College and studied business administration and banking. In January 2000, she enrolled at Texas Careers and earned a certificate for medical office assistant by December 2000. She was pregnant and employed at South Texas National Bank while attending school.

In June 2001, she gave birth to her daughter and stayed home for three months and then sought employment in the medical field. She found employment with the Laredo Medical Group from September 2001 to March 2004 working both the front and back office verifying insurance and triage. She was offered her job back at Laredo National bank and became a teller, and promoted as a Customer Service Specialist and stayed with the bank until BBVA bought out Laredo National Bank in February 2006. After leaving the bank, she was employed as a nurse assistant from March 2006 until September 2010. He resigned from this position to take care of mom who was terminally ill with cancer in San Antonio, Texas. She was unemployed from September 2010 to November 2010. She obtained a job at the Sheriff's Department from a good friend of her parents and worked as administrative personnel in human services. She left the Sheriff's department after eight months when the grant she was hired under expired.

From August 2001 until December 2014 she was employed at an OB/GYNs office in Laredo working at the front desk. She took a job for the City of Laredo from January 2015 through February 2017 in accounts payable and was promoted to the Health Department, not knowing it was grant funded and ended in February 2017. She was unemployed from February to August 2017. In August 2017, she found employment at Buckland Logistics Company as a billing clerk and one month later, in September 2017 she was involved in a MVA.

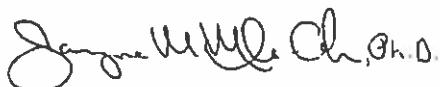
She never married and has been living with her boyfriend for 20 years and they have a 16 year old daughter together. She is interested in completing her business degree.

### **Conclusions and Prognosis**

Ms. Soto does meet diagnostic criteria for Mild Neurocognitive Disorder, with specific impairments with mild executive functioning abilities, verbal and visual memory, and fine motor abilities. Ms. Soto will require learning compensatory strategies to adjust to living with the sequelae of suffering a mild traumatic brain injury as a result of her involvement in a motor vehicle accident. Ms. Soto's prognosis is fair to any significant further cognitive recovery. It is known that the most cognitive recovery occurs within the first three to six months post mTBI and since we are still within this time frame, we may see some mild improvement, but likely not to her premorbid level of functioning. When Ms. Soto is re-evaluated in 12-18 months, it can then be determined if there has been any clinically significant improvement, decline, or stability, and recommendations and prognosis can be updated at that time.

I reserve the right to amend this report if I am provided with further information that would impact my clinical decisions and conclusions discussed in this evaluation.

Thank you for the opportunity to assist in Ms. Soto's Neuropsychological Evaluation. Please do not hesitate to contact me at 210-860-9755 if you need additional information or if I can be of further assistance.



Janyna M. Mercado, Ph.D.  
Clinical Neuropsychologist

## NEUROPSYCHOLOGICAL TEST DATA SUMMARY SHEET

### INTELLECTUAL / COGNITIVE FUNCTIONING

#### Wechsler Adult Intelligence Scale, 4<sup>th</sup> Ed (WAIS-IV)

#### \*\*ACS FULL DEMOGRAPHIC ADJUSTMENT\*\*

		Composite Scores	**T-Score	%ile**	Description		
VCI	Scaled Score	**T-Score	%ile**	PRI	Scaled Score	**T-Score	%ile**
Similarities	7	42	21.2	Block Design	8	46	34.5
Vocabulary	6	37	9.7	Matrix Reasoning	8	46	34.5
Information	5	35	6.7	Visual Puzzles	8	46	34.5
WMI	Scaled score	**T-Score	%ile**	PSI	Scaled Score	**T-Score	%ile**
Digit Span	9	50	50	Symbol Search	9	46	34.5
Arithmetic	10	56	72.6	Coding	8	42	21.2

#### Advanced Clinical Solutions (ACS) Test of Premorbid Function

Raw Score	Standard Score	Percentile	Descriptor
22	79	8.1	Borderline

#### Montreal Cognitive Assessment (MOCA)

Total	25/30
-------	-------

### ATTENTION & PROCESSING SPEED

#### Wechsler Adult Intelligence Scale, 4<sup>th</sup> Ed (WAIS-IV) Processing Speed

Composite Score		T-Score*	%ile*	Description*
92		43	24.2	Low Average
Subtest	Scaled Score	Full-Demographic* Adjusted T-Score	*Percentile Rank	*Description
Symbol Search	9	46	34.5	Average
Coding	8	42	21.2	Low Average

### LANGUAGE

#### Wechsler Adult Intelligence Scale, 4<sup>th</sup> Ed (WAIS-IV) Verbal Comprehension

Composite Score		T-Score*	%ile*	Description*
78		36	8.1	Mild Impairment
Subtest	Scaled Score	Full-Demographic* Adjusted T-Score	*Percentile Rank	*Description

Janyna M. Mercado, Ph.D.  
Clinical Neuropsychologist

13409 NW Military Hwy, Ste 301  
San Antonio, Texas 78231

23 February 2018

GTI/Soto\_0341

Similarities	7	42	21.2	Low Average
Vocabulary	6	37	9.7	Mild Impairment
Information	5	35	6.7	Mild Impairment

Boston Naming Test				
	Raw Score	Scaled Score	T-Score	Description
Total Correct	47	7	32	Mild/Moderate Impairment

DKEFS Verbal Fluency			
Subtest	Raw Score	Scaled Score	
Letter Fluency	29	7	
Category Fluency	44	12	
Category Switching Correct	11	6	
Category Switching Accuracy	6	4	

#### MOTOR FUNCTION / MANUAL DEXTERITY

Grooved Pegboard Test				
	Raw Score	Scaled Score	T-Score	Description
Dominant (R)	94	5	24	Moderate/Severe
Non-dominant	125	4	22L	Moderate/Severe

#### EXECUTIVE FUNCTIONS

	Raw	Age/Education Demographically Corrected		
		Standard Score	T-Score	Percentile
Total Errors	28	90	43	25
Perseverative Responses	25	77	35	6
Perseverative Errors	17	84	39	14
Nonperseverative Errors	11	94	46	34
% Conceptual Level Responses	70%	92	45	30
Categories Completed	6			>16
Trials to Complete 1 <sup>st</sup> Category	11			>16
Failure to Maintain Set	0			>16
Learning to Learn	-3.64			11-16

D-KEFS Trail Making Test	Raw (sec)	SS
Visual Scanning	22	9
Number Sequencing	37	9
Letter Sequencing	26	11
Number Letter-Sequencing	62	11
Motor Speed	29	10

DKEFS Color-Word Interference			
Subtest		Raw Score	Scaled Score
Condition 1: Color-Naming		26	11
Condition 2: Word-Reading		23	9
Condition 3: Inhibition		55	9
Condition 4: Inhibition/Switching		80	5

### VISUOSPATIAL ORGANIZATION & REASONING

Wechsler Adult Intelligence Scale, 4th Ed (WAIS-IV) Perceptual Reasoning				
Composite Score		T-Score*	%ile*	Description
88		45	30.9	Average
Subtest	Scaled Score	Full-Demographic* Adjusted T-Score	*Percentile Rank	*Description
Block Design	8	46	34.5	Average
Matrix Reasoning	8	46	34.5	Average
Visual Puzzles	8	46	34.5	Average

Rey Complex Figure			
	Raw	Percentile	
Copy	25		≤ 1
Time to Copy	164		>16

### VISUOSPATIAL MEMORY

Rey Complex Figure			
	Raw	T-Score	Percentile
Copy	25		≤ 1
Time to Copy	164		>16
Immediate Recall	13.5	30	2
Delayed Recall	11.5	24	<1

### WORKING MEMORY

Wechsler Adult Intelligence Scale, 4th Ed (WAIS-IV) Working Memory				
Composite Score		T-Score*	%ile*	Description
97		53	61.8	Average
Subtest	Scaled Score	Full-Demographic* Adjusted T-Score	*Percentile Rank	*Description
Digit Span	9	50	50	Average
Arithmetic	10	56	72.6	Above Average

### AUDITORY MEMORY

#### Wechsler Memory Scale, 4th Ed (WMS-IV) Auditory Memory Index

Subtest	Scaled Score	Full-Demographic* Adjusted T-Score	*Percentile Rank	*Description
Logical Memory I	12	57	75.8	Above Average
Logical Memory II	11	52	57.9	Average

### AUDITORY LEARNING & MEMORY

#### California Verbal Learning Test, 2<sup>nd</sup> Ed (CVLT-II) Standard Form

Recall	Raw	Standard Score	Recall Errors	Raw	Standard Score
Trial 1 Free Recall	6	-1	Free Recall Intrusions	11	2.5
Trial 2 Free Recall	9	-0.5	Cued-Recall Intrusions	7	3
Trial 3 Free Recall	4	-4	Total Intrusions	18	3
Trial 4 Free Recall	11	-1	Total Repetitions	1	-1
Trial 5 Free Recall	7	-3	Learning Characteristics	Raw	Standard Score
Trials 1-5 Total	37	31T	Total Learning Slope Trials 1-5	0.4	-2
List B Free Recall	2	-2	Recognition Trials	Raw	Standard Score
Short-Delay Free Recall	9	-1	Total Hits	16	0
Short-Delay Cued Recall	12	-0.5	Total False Positives	7	2.5
Long-Delay Free Recall	9	-1.5	Total Recognition Discriminability	2.6	-1.5
Long-Delay Cued Recall	10	-1.5	Forced Choice Recognition	16/16	100%

### SELF-REPORT MEASURES

#### Beck Depression Inventory, 2<sup>nd</sup> Ed (BDI-II)

Total	20	Range	20-28 = Moderate
-------	----	-------	------------------

#### Beck Anxiety Inventory (BAI)

Total	10	Range	8-15 = Mild
-------	----	-------	-------------

#### PCL-5

Total	17
-------	----

MMPI-2-RF T-SCORES				
Validity Scales				
VRIN-r <i>(Variable Response Inconsistency)</i>	53	TRIN-r <i>(True Response Inconsistency)</i>	50	
F-r <i>(Infrequent Responses)</i>	56	FP-r <i>(Infrequent Psychopathology Responses)</i>	51	
Fs <i>(Infrequent Somatic Responses)</i>	66	FBS-r <i>(Symptom Validity)</i>	61	
RBS <i>(Response Bias Scale)</i>	67	L-r <i>(Uncommon Virtues)</i>	42	
K-r <i>(Adjustment Validity)</i>	42			
Higher Order				
EID <i>(Emotional/Internalizing Dysfunction)</i>	59	THD <i>(Thought Dysfunction)</i>	63	
BXD <i>(Behavioral/Externalizing Dysfunction)</i>	65			
Restructured Clinical				
RCd <i>(Demoralization)</i>	62	RC1 <i>(Somatic Complaints)</i>	77	
RC2 <i>(Low Positive Emotions)</i>	61	RC3 <i>(Cynicism)</i>	70	
RC4 <i>(Antisocial Behavior)</i>	54	RC6 <i>(Ideas of Persecution)</i>	70	
RC7 <i>(Dysfunctional Negative Emotions)</i>	53	RC8 <i>(Aberrant Experiences)</i>	63	
RC9 <i>(Hypomanic Activation)</i>	53			
Somatic/Cognitive				
MLS <i>(Malaise)</i>	63	GIC <i>(Gastrointestinal Complaints)</i>	64	
HPC <i>(Head Pain Complaints)</i>	72	NUC <i>(Neurological Complaints)</i>	70	
COG <i>(Cognitive Complaints)</i>	58			
Internalizing				
SUI <i>(Suicidal/Death Ideation)</i>	45	HLP <i>(Helplessness/Hopelessness)</i>	69	
SFD <i>(Self-Doubt)</i>	76	NFC <i>(Inefficacy)</i>	48	
STW <i>(Stress/Worry)</i>	52	AXY <i>(Anxiety)</i>	59	
ANP <i>(Anger Proneness)</i>	59	BRF <i>(Behavior-Restricting Fears)</i>	56	
MSF <i>(Multiple Specific Fears)</i>	59			
Externalizing				
JCP <i>(Juvenile Conduct Problems)</i>	63	SUB <i>(Substance Abuse)</i>	55	
AGG <i>(Aggression)</i>	56	ACT <i>(Activation)</i>	53	
Interpersonal				
FML <i>(Family Problems)</i>	49	IPP <i>(Interpersonal Passivity)</i>	46	
SAV <i>(Social Avoidance)</i>	55	SHY <i>(Shyness)</i>	37	
DSF <i>(Disaffiliativeness)</i>	58			
Interest				
AES <i>(Aesthetic-Literary Interests)</i>	39	MEC <i>(Mechanical-Physical Interests)</i>	56	

## S & P VALIDITY

ACS Effort Measures		
	Raw	Clinical Base Rate
Reliable Digit Span	9	>25%
Word Choice	50	>25%

Dot Counting Test	
E-Score	10
Comparison Group	Normal Effort Interpretative Range
Depression	≤13
Head Injury Group	≤19

TOMM	
Trial 1	48/50
Trial 2	50/50
Retention	Not Admins

### Sources of Normative Data

Advanced Clinical Solutions for the WAIS-IV and WMS-IV: Clinical and Interpretive Manual and scoring software (2009).

Binks, P. G., Boone, K., Ph.D., & Herzberg, D., Ph.D. (1992). The detection of malingering using the dot counting test. WPS.

California Verbal Learning Test, Second Edition, Adult Version: Manual (2000).

Delis-Kaplan Executive Function System: Examiner's Manual (2001).

Green, P. (2005). Greens medical symptom validity test. Edmonton: Greens Pub.

Minnesota Multiphasic Personality Inventory, 2nd Edition, Restructured Form: Manual for Administration, Scoring, and Interpretation (2008).

Morey, L. C. (1991). The personality assessment inventory. Lutz, FL: Psychological Assessment Resources, Inc.

Revised Comprehensive Norms for an Expanded Halstead-Reitan Battery: Demographically Adjusted Rey Complex Figure and the Recognition Trial: Professional Manual (1995).

Rouleau et al. (1992). Quantitative and qualitative analysis of clock drawings in Alzheimer's and Huntington's disease. Brain Cognition, 18, 70-87.

Tombaugh, T. N. (2007). Test of memory malingering: TOMM. North Tonawanda, NY: MHS.

Wechsler Adult Intelligence Scale, 4th Edition: Administration and Scoring Manual (2008).

Wechsler Memory Scale, 4th Edition: Administration and Scoring Manual (2009).

Wisconsin Card Sorting Test: Manual, Revised and Expanded (1993).